The pass unit will be different for a different wall thickness, and it may be desirable to try several variations, in order to secure the most desirable arrangement. An old rule is that the active heat-storage capacity of brickwork is comprised in the depth of 1.25 in from the surface, giving a wall thickness for maximum results of 2.5 in (63 mm). When the brickwork is laid up to secure stability, 9-in straights give very good results. With thicker walls the time of the cycle must be increased, to develop the full weight of the brickwork. With the time cycle assumed, which agrees fairly closely with practical working, a wall thickness of 2.5 in (63 mm) utilizes its full heat-storage capacity. With a fifteen-minute cycle a 2-in wall would be desirable, but is probably a little too thin to give the best operating results.

TABLE 16—Continued

	Gas on Gas	*Air on Air	Gas on Waste Gas	Air on Waste Gas
By using a 2-in (50 mm) brick, the size of the pass and the space	150 mm	6 0 in		
Brick thickness	50 mm	2 0 in		
Diamet r square pass	100 rnm	4 0 in		
Wall thickness around pass	63 rnm	2 5 in	50 rnm	2 0 in
Area unit pass = 6^2 = ...	0 m^2		0 m^2	
Area of pass opening = ...	0 m^2		0 m^2	
Area occupied by brick = ...	0 rn^2		0 m^2	
As the unit pass was made the same, the volume of brick and pass in the air checker	166 m^3 37			
Pass =301.06X0.4474= ..	134 m^3			

The lineal amount of pass and brickwork is found by dividing the brick and pass volumes by the area of the brick and pass in the pass unit. It will generally be found that there is a slight disagreement between the lengths determined for the pass and the brickwork. It is preferable to take the highest of the values so found for determining the size of the

space to be occupied by the